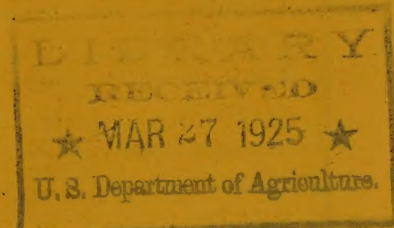


63.9
AUSTRALIA
1925

ates' Autumn List of _____

FARM SEEDS

For 1925



LUCERNE—The King of Fodder and Grazing Crops.

Arthur Yates & Co. Ltd.
Suppliers of Recleaned & Tested Farm Seeds
184. 186. 188. Sussex St.
Sydney N. S. W.

D. N. Shoemaker

Australia

MAR 26 1925

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More Cultivation More Fodder More Profit.

THE present is a very favourable time for laying down improved Pastures, Lucerne and other permanent crops and for increasing the area under Cultivation on the Farm. We feel convinced that throughout our coastal and tableland districts, which usually have a good and fairly regular rainfall, every additional acre put under cultivation will yield additional profit to the Farmer, and this applies particularly to those engaged in the great Dairying Industries, as it is only by intense cultivation that the maximum returns will be obtained.

We trust this Catalogue will be of assistance when deciding on the cropping to be undertaken and we shall be glad to give on request any further information at our disposal.

For all prices, see our Current Price of Farm Seeds (post free).

Arthur Yates & Co. Ltd.

For all Farm Seeds.

We have the most complete SEED-DRESSING-PLANT in the Australian Trade.

Yates' Re-Cleaned and Tested Farm Seeds

CONDITIONS OF SALE AND NON-WARRANTY.

We believe that all Seeds, Bulbs, and Roots sold by us are of the description and kind specified by us at the time of sale, but owing to the practical impossibility in many cases of being certain of this, we give no undertaking that such Seeds, Bulbs, or Roots will correspond with the description under which they are sold, and we make all sales subject to this condition. We further give no warranty, expressed or implied, as to their growth, description, quality, or productiveness and will not be in any way responsible for the crop. If the purchaser does not accept the goods sold to him on these terms, they are at once to be returned to us, and any money paid to us will be refunded. **ARTHUR YATES & Co. Ltd.**

PRICES.—As this catalogue goes to press before our supplies of most lines are received, we are unable to give prices in these pages. We will gladly give definite quotations, and if requested, send samples on receipt of enquiry, stating approximate quantities wanted.

FORWARDING.—All orders should bear full name and postal address, also name of railway station or shipping port to which the goods are to be sent, and directions for route where there is an alternate one. Customer will confer a favor upon us by sending in their orders early.

TERMS.—Orders should be accompanied by remittance for the approximate amount of the order. Cheques under £5 should always have exchange added, and, when goods are required by coastal steamer, the freight must also be included. We will deliver seeds on rail or wharf, Sydney, after which seeds are on customer's account and at his risk. Our terms for Seed Grain, Grass, Clover, Lucerne, and other Agricultural Seeds are strictly Net Cash. All Grass and Fodder Seeds are charged at Net weights, and bags charged extra; this is more to the buyer's advantage than to have the bags weighed in and charged at seed prices.

YATES' FARM CALENDAR

Approximate times for sowing are denoted by

† for moderately warm climates where Oranges thrive.

* for cool climates, say where English Fruits thrive.

The most suitable times for sowing are very largely influenced by local conditions and seasons, and these and any local experience available should always be taken into consideration.

Farm Seeds

	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Artichoke, Jerusalem	...	...	...	...	...	†*	†*	†*	...	...	...	...
Barley, Cape & Skinless	†*	†*	†*	†*	†*	†*	†*	...	...	...	...	...
Barley, English	†*	†*	†*	†*	†	...	...	...	...	...	...	...
Beet, Sugar	...	...	...	...	...	...	...	†*	†*	†*	...	...
Beet, Silver (Field)	...	†*	†*	†*	...	...	†*	†*	†*	†*	...	...
Buckwheat	...	...	...	...	...	...	...	†	†*	†*	...	...
Canary	...	*	†*	†*	...	...	...	...	...	...	...	...
Carrot (Field)	...	†	†	...	...	...	†*	†*	†*	...	...	...
Cabbage (Cattle)	*	*	*	...	...	...	...	...	...	...	*	...
Chicory	...	†*	†*	...	...	...	...	†*	†*	†*	...	...
Clover (Sorts)	...	*	†*	†*	†*	...	...	*	...	...	...	...
Couch	...	...	...	...	...	...	†	†	†*	†*	†	...
Cow Pea	...	...	...	...	...	...	...	†	†	†	†	...
Grasses, Pasture	...	†*	†*	†*	†*	...	...	*	...	...	...	...
Kale, Thousand Headed	†*	†*	†*	...	...	...	...	...	...	...	*	...
Kale, Chou Moellier	†*	†*	†*	...	...	...	...	...	...	...	*	...
Linseed (Flax)	...	...	†*	†*	†*	†*	†*	...	...	...	...	...
Lucerne	...	†*	†*	†*	†*	†*	†*	...	...	...	...	...
Maize, for Grain	...	...	...	...	...	...	†	†	†	†	†	...
Maize, for Fodder	†	†	†	...	...	...	†	†*	†*	†*	†*	...
Mangel	...	†	†	...	...	...	...	†*	†*	†	...	...
Mangel, Half Sugar	...	†	†	...	...	...	...	†*	†*	†	...	...
Millet, (See Sorghum)	...	...	...	...	...	...	...	...	...	...	...	...
Mustard	...	†*	†*	†*	...	...	†*	†*	...	...	...	...
Melon, Cattle	...	...	...	...	...	...	...	†	†	...	...	...
Oats, for Fodder	*	†*	†*	†*	†*	†*	†*	†*	...	...	...	...
Oats, for Grain & Hay	†	†*	†*	†*	†*	†*	†	...	...	...	...	...
Paspalum	...	†*	†*	†*	...	...	†	†	†*	†*	†*	...
Peanuts	...	...	...	...	...	...	...	†	†	†	†	...
Peas, Field for Fodder	†*	†*	†*	†	†	†	†*	†*	†*	*	...	...
" " " Soiling	†*	†*	†*	†	†	†	†*	†*	†*	*	...	...

Farm Seeds

	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Peas, for Garden	...	†	†	†	†	†*	†*	†*	†*	†*	*	†
" " Market	...	†	†	†	†	†*	†*	†*	†*	†*	*	†
Pumpkin	...	...	...	...	...	...	...	...	...	†	†	...
Potatoes	...	†*	†	...	...	†	†*	†*	†*	†*	...	...
Rape	...	...	†*	†*	†*	†*	...	...	...	...	...	...
Rye Corn	...	†*	†*	†*	†*	...	...	...	...	...	...	...
Rhodes Grass	...	†	†	...	...	...	...	...	...	†	†	†
Sainfoin	...	...	*	*	*	...	...	...	...	...	...	...
Saltbush	...	...	†	†	†	...	†	†	†	†	...	...
Shallots	...	†	†	†	†	...	...	...	...	...	...	...
Sheeps Burnet	...	...	†*	†*	†*	...	†*	†*	...	...	...	...
Sorghums & Millets—	...	...	...	...	...	...	...	...	...	...	...	...
Saccharatum	...	†*	†	...	...	...	...	†	†*	†*	†*	†*
Sacaline	...	†*	†	...	...	...	...	†	†*	†*	†*	†*
Planter's Friend	...	†*	†	...	...	...	...	†	†*	†*	†*	†*
Early Amber Cane	...	†*	†	...	...	...	...	†	†*	†*	†*	†*
Millet, Fodder V'ties	...	†*	†	...	...	...	...	†	†*	†*	†*	†*
Millet, Broom	...	...	...	...	...	...	...	†	†*	†*	...	...
Grain Sorghums	...	...	...	...	...	...	...	†	†	†	...	...
Sudan Grass	...	...	...	...	...	...	...	†	†	†*	†*	†*
Sunflower	...	...	...	...	...	...	...	†	†	†	...	...
Swede	...	†*	†*	†*	...	...	...	...	...	...	*	...
Tagosaste	...	...	...	†*	†*	†*	...	†*	†*	†*	...	...
Tares	...	...	†*	†*	†*	†	†	†	...	...	...	...
Tobacco	...	...	...	...	...	...	...	†	†	...	...	...
Teosinte	...	...	...	...	...	...	...	†	†	†	...	...
Turnip (Field)	...	†*	†*	†*	†*	...	...	...	...	...	...	...
Wallaby Grass	...	...	...	...	...	...	...	...	...	...	...	...
(Danthonia)	...	...	†*	†*	†*	...	...	†*	†*	...	...	...
Wheat, for Fodder	...	*	†*	†*	†*	...	...	†*	†*	...	...	...
Wheat, for Grain	...	...	...	†*	†*	†*	...	...	...	...	...	...

VALUABLE NATIVE GRASSES

OWING to seasonal and economic conditions it has been impossible to ensure regular supplies of more than one or two of our splendid native grasses. This will probably be gradually remedied with the growing realization that in her native grasses and plants Australia possesses perhaps her greatest asset.

Those interested should write for particulars of varieties available.

Farmers and graziers saving seeds in commercial quantities of any of the above are invited to communicate with us and send samples. There are several other Australian grasses of considerable merit, but seed is rarely in the market.



Coolah Grass and Native Millet at our Trial Grounds.

WALLABY GRASS

(*Danthonia*)

One of the hardiest of our native grasses. Grows in a wide variety of soils and climates. Especially adapted to the poorer soils unsuited to other grasses, splendid for sheep.

Mr. F. Turner in his work, "Australian Grasses," says of this variety.—"It grows both in the coastal districts and in the arid interior; it is one of the most nutritious grasses of Australia, and, unlike most other species of this genus, it will grow more or less all the year round. Stock of all descriptions are remarkably fond of it. The seed germinates readily after showery weather in the autumn and spring months. On good soils the roots of this grass penetrate to a great depth, which enables the plant when growing in the arid interior to withstand long spells of dry weather." The seed is very light, and a small quantity will cover a good breadth of land; we would strongly recommend that two to three pounds per acre should be added to all mixtures for any soil or climate, or up to fifteen pounds per acre alone.

MITCHELL GRASS

(*Astrebula*)

This is one of the best native grasses we have, and will yield a large amount of succulent herbage, of which stock are very fond. This grass is very nutritious, a good drought resister, and forms a permanent pasture. Requires well-drained land. Quickly responds to rainfall. If cut when it first shows the flower stem, makes excellent hay. Seed is only saved in favorable seasons and we usually offer both *Astrebula triticoides* and *Astrebula elymoides*. Sow two to three pounds per acre.

AUSTRALIAN BLUE GRASS

(*Andropogon sericeus*)

This perennial grass grows well in the coastal districts and colder portions of New South Wales, Victoria and Queensland but it is also found in other parts. It is a valuable pasture grass, and, in suitable situations, makes considerable growth in the winter, making it doubly valuable to graziers and farmers. It will also yield an amount of rich, leafy, bottom herbage in the summer months, of which cattle and sheep are very fond and will fatten on. An excellent grass, will stand close feeding well, and will continue growing during long periods of dry weather. Sow two to three pounds per acre. No supplies at present but we may have stocks later in summer.

COOLAH GRASS

(*Panicum prolatum*)

An erect perennial species, found more or less in most of the Australian States, generally in good situations. It makes its growth during the summer months, stands considerable hot weather, usually keeping green well into the autumn. It thus forms a valuable pasture for our coastal and inland country, though it is not recommended for the table lands owing to the severe frosts.

The department have recently been experimenting with this grass in mixed pastures with considerable success. No supplies at present.

NATIVE MILLET

(*Panicum decompositum*)

Noted for the wonderfully quick growth it makes after rain and the weight of leafage it produces in good seasons. It is considered to be a grass well worth cultivating, and it is adaptable to a wide range of soils and climates. It is very drought resistant and of perennial character but makes its growth in the warmer months. Supplies uncertain.

FLINDERS GRASS

(*Anthistiria membranacea*)

Flinders Grass is very nutritious and palatable and under average conditions is easily propagated by seed. It is a great fattening grass; it is good for temporary pasture and makes excellent hay, and even when the grass is matured and dried up stock like it and do well on it. It is worth trying to establish in our inland districts if not already found in the pastures. It also goes under the names of Barcoo Grass and Landsborough Grass.

ROOT PLANTING

When only limited supplies of seed are available or where it is desired to test the value of grasses, it is worth trying to establish plots for experiment and for propagation by root division (where the nature of the root system permits).

Even if only a small quantity of seed be sown it will in a rich piece of land quickly form large clumps and these can be lifted and carefully sub-divided and replanted, say six to nine inches apart, and this course can, if desired, be repeated again and again. For full and interesting information on Native Grasses we would refer readers to Mr. E. Breakwell's new book "The Grasses and Fodder Plants of N.S.W." which we can supply at 6/- (postage 4d.)

PASTURE GRASSES.

FOUR HARDY GRASSES FOR WARM CLIMATES

THESE four varieties, but especially *Paspalum Dilatatum* and Rhodes Grass are very extensively used in our dairying districts while Rhodes Grass will also succeed well in many parts of our Western Country where the elevation is not great. They should be sown in the late spring, summer or early autumn when the weather and soil conditions are favourable for germination and quick growth.

RHODES GRASS

(*Chloris gayana*)

A very strong-growing grass, which, rooting at every joint, soon covers a large area. About the only grass that will hold its own with *Paspalum*. Excellent for moist situations and hot climates, but succeeds well in a large range of situations and climates, except where heavy frosts are experienced. It is quick germinating after rain and makes growth rapidly and is very palatable to all stock. When well established it is remarkably drought resistant. It is very largely used for surface sowing after clearing and burning off scrub in the coastal areas, and for this purpose there is nothing better. In all the dry inland districts of Queensland Rhodes Grass is proving of the utmost value and has also been of great value in Western N.S.W., not only in mixed pastures but as a special grazing crop when planted with Lucerne, say four pounds of Rhodes and two or three pounds of Lucerne per acre. A customer near Wee Waa writes:—"Please quote Rhodes Grass. Last year's sowing stood up remarkably considering the gruelling it got with stock. I am quite satisfied that it is a beautiful grass." When sown alone four to six pounds per acre is sufficient if good quality seed is used.



PASPALUM COMPRESSUM

(Also known as Durrington Grass or Carpet Paspalum)

A dwarf compact growing variety of *Paspalum*, proving of great value for poor sandy stretches of country where *Paspalum Dilatatum* does not do well; makes well matted roots, but is most suited for warm climates. Sow five pounds per acre.



Rhodes Grass

PASPALUM DILATATUM

(Yates' Prime "Hand-Shaken")

Does well planted in conjunction with Rhodes Grass. The seed should be sown during spring, summer, or early autumn, say from August to April. Succeeds best where moist warm conditions prevail, but will prove a very profitable crop even where a moderate rainfall is experienced, and under these latter conditions it is not so likely to become rank and difficult to deal with. Once introduced into swampy land *Paspalum* soon covers it with a thick mat and gives good grazing where the land would otherwise be useless. Sowing a few pounds of White Clover with the *Paspalum* is good practice. Sow ten pounds per acre. Special quotes for large quantities.

COUCH GRASS

(*Cynodon dactylon*)

Stands heat and drought well and is specially suited for hot, dry districts where other grasses do not succeed. It is also of great value for binding loose soil, sand banks, etc. It should not be planted near cultivation paddocks, as it is difficult to eradicate. Sow in warm weather after good rains. Sow ten to twelve pounds per acre.

A SEEDING SPECIFICATION WE CAN RECOMMEND FOR SOWING AFTER BUSH BURNS AND FOR Permanent Pasture

The grass seed should be sown at once after burns to get advantage of the first rains. It will then come on very quickly.

Where it is preferred to sow the varieties separately, it is usual to sow the Rhodes Grass on the hills and the *Paspalum* and Clovers on the flatter and moister country.

5	lbs.	<i>Paspalum</i>
10	"	Rhodes Grass
3	"	<i>Danthonia</i> (Wallaby Grass)
2	"	Couch Grass
2	"	White Clover
3	"	Subterranean Clover
3	"	Red Clover

23 lbs. per acre. (Prices on application)

PASTURE GRASSES (Continued)

THE varieties in the following list are introduced grasses which have proved to have a distinct value in the temperate parts of Australia with a good average rainfall. They can be recommended for the N.S.W. coast and tablelands and for districts with similar climatic conditions in other States. Autumn is the best time for sowing these varieties, but sowings may also be made in the spring in favorable situations if the weather be favorable.

As regards Kikuyu Grass, Elephant Grass, and Texas Blue Grass, these are distributed by roots or cuttings only, and these can be put out with advantage from early spring onwards.

TALL OAT GRASS

(*Avena elatior*)

In recent trials in our Northern districts this grass has proved very successful, and it is thought that it will become one of our leading artificial grasses for dry or sandy soils. It has a deep rooting system, which protects it against drought, and it quickly spreads when once established. It is a good winter grass and a quick grower. Stock may at first be averse to it, but when used to it eat it readily, especially if sown in mixture with other grasses. Customers are recommended to try this grass in land which is rather light in character for other artificial grasses, and we would be pleased to have reports after testing.

It withstands heat of summer and the cold of winter, starts very early in spring and continues to give good grazing over a long period. It has been grown successfully in the Department Trials at Bathurst, Cowra, Wagga and Glen Innes. Sow 25 lbs. to 30 lbs. per acre if alone, but it is best included in mixture with other grasses.

PHALARIS BULBOSA

For several years the supply of this most valuable grass has been insufficient to meet the demand, but for this season we have made special arrangements and hope to have ample supplies throughout the season.

Each year Phalaris Bulbosa is required in greater quantity as its merits become better known to farmers and graziers. It is considered by many to be a superior grass, for our conditions, to Rye Grass and Cocksfoot. It has a

particular value in its ability to withstand hard cold conditions; in fact, it makes wonderful growth in the winter months. It is a grass we particularly recommend for the tableland and coastal country of N.S.W. and for similar conditions in other States. It is succulent, palatable, and a strong grower. It is deep rooting and when once established is drought resistant, and forms a splendid permanent pasture, which stands hard grazing, and is excellent for sheep. When judiciously grazed it forms a close turf. This grass also makes good hay if cut as soon as the flower heads are forming. About 10lbs. per acre is a reasonable sowing, and we suggest that about 2lbs. per acre of White Clover or $\frac{1}{2}$ lb. to 1lb. per acre of Subterranean Clover be included either with Phalaris alone or with Phalaris and other grasses in mixture.

COCKSFOOT

(*Dactylis Glomerata*)

This is one of our most useful introduced grasses and, with Perennial Rye Grass, Fescues and one or two others, should form the bulk of all artificial pastures in the more favored of the coastal and tableland country. It is one of the hardiest of the introduced grasses, withstanding extremes of climate to a wonderful extent. It is inclined to grow tussocky, but judicious grazing and occasionally allowing it to seed itself down will counteract this. If sown alone one and a half bushel per acre should be ample.

Yates' Extra Heavy Re-machined—This is heavy thoroughly machine cleaned seed which will give a good germination and a quick and even catch.



The Little Extra Cost of Yates' Re-cleaned and Tested Farm Seeds is more than repaid by the clean vigorous crops and the heavy yields

Mrs. A. G. —

Jugiong, 16/5/24

Dear Sirs,

I might mention that the Seed Maize I got from you averaged 80 bushels per acre, which is a great yield for here.

Mr. G. H. C. —

Tumut

It is now 18 years since my late father got two bags of Poverty Rye Grass from you and sowed it, and at the present time it is very nice; only about 3 weeks ago it was all under water for three days, with floods, but has come on nicely now, and was only sown the once.

PASTURE GRASSES (Continued)

KIKUYU GRASS

(*Pennisetum clandestinum*)

We undoubtedly have in Kikuyu a grass of which the quality and capabilities are hardly yet realized by farmers and pastoralists. It is a native of British East Africa and is a perennial grass with a strong system of surface and underground runners. On this account it is a very quick spreading variety and also remarkably drought resistant. Mr. Breakwell (late Government Agrostologist) who is very largely responsible for the widespread interest in this grass, states that it should succeed and be profitable to grow in almost any part of N.S.W. where the rainfall is 20 inches or over. It is of particular value for poor clay or sandy soils where it is usually difficult to grow anything but weeds, though naturally the richer soils will give correspondingly better results.

The underground runners quickly root at the joints then send up fresh growth to a height of 1 ft. or 2 ft. or even more in rich localities.

Under coastal conditions it is the quickest growing grass we have, growth taking place continuously except where frosts are experienced.

On the tableland country and throughout the slopes it will succeed well, and in Queensland also it is creating widespread interest. It will, we think, be found a useful grass in many parts of Victoria, particularly where *Paspalum* is found.

It does not seed in Australia, therefore, it can only be distributed by means of rootlets which we can supply at any time from late winter on. It is recommended to plow the land, open up furrows six feet apart, dropping in the rootlets about over three feet. At this rate about 2500 plants will suffice for one acre. We recommend all to try this grass which comes away earlier than *Paspalum* and gives such heavy yields of very high quality fodder. It adds to the value of the pasturage and gives a more balanced ration if some of the clover family can also be introduced and we suggest $\frac{1}{2}$ lb. White Clover or Subterranean Clover and in cold districts Perennial Red Clover

PRAIRIE GRASS

(*Bromus unioloides*)

This is a most valuable grass particularly for the dairyman. It gives wonderful yields of fodder in suitable country and cows milk splendidly on it. It is a first class pasture grass and also makes excellent hay. Owing to its palatability all stock are very fond of it, and as it will not stand continuous heavy grazing it should be spelled regularly, and this is well worth while owing to the extra yields thereby obtained. It grows luxuriantly during the winter providing feed when badly needed. It grows to best advantage in rather loose rich soils. Sow up to two bushels per acre.

Yates' Finest Bright Re-machined—A heavy grade plump seed of a very high percentage of germination and purity.

AWNLESS BROME GRASS

(*Bromus inermis*)

A useful pasture grass which has not been obtainable recently. We have now secured a supply and feel sure there will be many glad of the opportunity of introducing this grass into their holdings. It is a perennial grass, tall growing with root creeping habit, a native of dry regions in Europe and Asia. In America, and particularly California, is looked on as of their hardiest grasses, being most drought resistant.

It is of great palatability and very fattening. Success with this grass has been recorded at Hawkesbury, Bathurst and Glen Innes Experiment Farms, also on the Yanco Irrigation Area.

The early growth is slow and this variety is not at its best until after the first year, but will then stand heavy stocking.

Sow about thirty-five pounds per acre alone or five pounds in mixture with other grasses. In suitable situations it will make good hay which has a high feeding value.

PERENNIAL RYE GRASS

(*Lolium perenne*)

On those parts of our coastal and tableland country where a high and regular rainfall may be looked for, this is one of the very best of the introduced grasses, and is a specially good winter grass for the dairy farmer. In suitable localities it is practically permanent but best results are obtained with this as with all artificial grasses by resowing at intervals of say five to ten years. Sow two bushels per acre if used alone.

Yates' Extra Heavy Poverty Bay—Is a wonderful perennial variety, saved in a dry climate and therefore much more suitable for Australian conditions than the cheaper grades generally sold, which are saved in cool wet climates.

Yates' Special Old Pasture—This is the next best long lasting strain and is superior to a great deal of the Rye Grass offered.

ITALIAN RYE GRASS

(*Lolium italicum*)

This grass is only a biennial but if not grazed too closely and is allowed to seed itself (but **not** until after the first year), it will last for several years. It is of great value as a hay crop sown alone; with clovers or with grain sow up to two bushels per acre.

Yates' Extra Heavy Re-machined Italian—This is a first class strain, thoroughly re-cleaned, of the ordinary Italian, and has given excellent results wherever grown.

Westerwoldicum Re-machined—This is a giant variety of Italian Rye Grass and is earlier and more vigorous. Very hardy.

WIMMERA RYE GRASS

(*Lolium subulatum*)

This is an annual Rye Grass which has proved of value in the northern wheat districts of Victoria, particularly for sowing down on lands exhausted by continuous cropping. It provides a large amount of green pasturage in the winter and spring, then ripens off. It can also be sown with wheat or oats as a cover crop and the whole cut for hay.

PRICES

As the harvests are not complete at time of going to press, it is not possible to quote prices in this Descriptive Catalogue. We issue at intervals Price Lists of all these lines, and we ask customers to write for our current issue of Farm Seed Prices whenever they contemplate planting.

PASTURE GRASSES (Continued)

POA PRATENSIS

(Kentucky Blue Grass)

One of the best winter grasses for dry soils, yielding a large quantity of herbage in the autumn, winter and early spring. It dies right down in the summer, but soon springs again, after rain. It has a creeping habit, resembling Couch, and, if once introduced, will become a permanency. The celebrated Blue Grass regions of America, so noted for their horses, take their name from this grass, which forms the bulk of the pastures there. As this grass is very delicate, and easily burnt up while in its younger stage, we recommend that it be sown in the early autumn only.

TEXAS BLUE GRASS

(*Poa arachnifera*)

This grass proved itself to be a drought resister of great merit. Best suited to light and sandy soils, roots planted a foot apart will soon cover the whole area. Valuable for cattle, stands heavy stocking. This grass can only be supplied in roots.



Agri. Dept. Photo.

ELEPHANT GRASS

(*Pennisetum purpureum*)

Although not strictly speaking a pasture grass, this recent introduction has proved to be a valuable acquisition and a fodder plant of considerable value. It will be noted from the photograph, reproduced herewith, that this is a vigorous growing plant, attaining a height of 12 to 15 feet. It stands cutting well, tests made by the Department of Agriculture showing a return of 50 tons and more of green fodder per acre per year, and also that this grass is of good feeding quality and that stock relish it, especially if not allowed to get too high and coarse. It may be either grazed or cut, and shows a very satisfactory food value by analysis. Milk yield and tests are well maintained. Elephant Grass is adapted to a wide variety of soils and climates and might well be tried out by progressive farmers, even if only on their poorer land. The cuttings should be planted three feet apart in and between the rows.

TALL FESCUE

(*Festuca elatior arundinacea*)

This grass has proved to be a distinctly valuable one, especially for poor land in our coastal districts. While it has not the feeding quality of, and is not relished by stock like Rye Grass, Prairie and Cocksfoot (we do not recommend it for land which will grow these grasses), it stands drought and hardship better, keeping green when other grasses are burnt up, and affording excellent grazing when the sweeter grasses either will not succeed or are shrivelled up. We would recommend a proportion of this in all mixtures for poor, dry, or hilly land.

CHEWING'S FESCUE

A variety of Hard Fescue, which has been grown in New Zealand with success on poor, light, as well as heavier lands; it has formed a good sward where no other grass would succeed. It stands drought well, as its strong roots penetrate deeply into the ground. It is permanent and throws up a large amount of feed in the early spring, particularly good for sheep. We would recommend that a little of this grass be included in all mixtures for permanent pasture, or, if planted alone, allow fifteen pounds per acre.

MEADOW FESCUE

(*Festuca pratensis*)

An excellent grass for elevated districts and in good soils. Should be included in all mixtures, except for very dry soils. It is relished by all stock and makes excellent hay. It is perennial, early and nutritious.

AGROSTIS

These grasses are used fairly largely for lawns, golf greens, etc., and their value for pasturage is low except in cold, harsh situations. We stock—*A. canina* (Brown Top); *A. vulgaris* (Red Top); and *A. stolonifera* or *alba* (Creeping, Bent or Fiorin).

OTHER GRASSES

We also stock the following, which, however, are of minor importance except for special situations or purposes. Timothy, *Poa Trivialis*, *Poa Nemoralis*, Meadow Fox Tail, Crested Dogs Tail, Yorkshire Fog, Rib Grass or Lambs Tongue.

TEFF GRASS

(*Eragrostis abyssinica*)

An Annual Summer growing grass in very great favour in South Africa especially where summer rains are prevalent. Its rate of growth is astonishing and it may be cut twice or more during the season if sown early. Under good conditions it supplies excellent summer grazing and makes very fine hay. Sow 6 lbs. to 8 lbs. per acre broadcast. For Australian conditions we think Sudan Grass will give better results, and we only recommend trials of Teff Grass where there are ample Summer rains. It must be resown every year.

PRICES

For all Prices see our Current Price List of Farm Seeds, post free at any time.

CLOVERS

A short description of some of the leading varieties of a wonderful family of plants which do much for the Agriculturalist—feed his stock—improve his land — and increase the subsequent crops.

FARMERS, especially those in areas where a fair rainfall is experienced, are realising more and more the great value of the Clovers as **Soil-renovators**, as well as fodder crops of the highest quality, either alone, in pasture, or sown with other greenstuff or hay crops.

For renovating worn-out land, and for keeping valuable farming land in proper condition, nothing will do more good than the Clover family (or if preferred other Legumes, such as Field Peas, Field Lupins and Soy Beans, and in warm climates Cow Peas). They take little out of the soil but add a most valuable manure in the form of nitrogen, which is gathered from the atmosphere. When the crop is ploughed in, the nitrogen is made available, while the foliage, stems and roots, form necessary "humus," which gives "life" to the land.

The addition of one or other of the Clovers, when laying down pastures or sowing greenstuff or hay crops, will provide a much **better balanced ration** of which stock are very fond; and when the crop is done the Clover will often give a good picking for a considerable period, afterwards being ploughed in for **green manure**.

Clovers succeed best in good "sweet" land and usually respond well to superphosphate. Sow 12lbs. to 15lbs. per acre alone, or if with pasture grasses 2lbs. to 3lbs. per acre.

Generally speaking, Clovers should be sown in the autumn, but in good seasons successful results can be obtained from spring sowing.

YATES' AY SUPERFINE WHITE CLOVER

(Trifolium repens)

This is used perhaps more than any other for sowing down with Pasture Grasses. It spreads quickly, especially in moist situations. Widely used on the North Coast of N.S.W. in Paspalum and Rhodes Grass Pastures, giving a splendid pick during the winter when these two grasses are more or less dormant. Succeeds in a wide variety of soils and climates.

YATES' ENGLISH WILD WHITE CLOVER

A hardier and more lasting strain than the ordinary White Clover; its root action is stronger, and it is of dwarfer and denser growth, and of more rapid creeping habit. Our seed is saved from long-established English pastures, and we recommend a little with all grass seed mixtures.

YATES' SUPERFINE N.Z. PERENNIAL RED CLOVER

(or Cow Grass)

(Trifolium pratense perenne)

Succeeds best in the cooler table-land country as it requires a fairly consistent rainfall. It is a vigorous grower, and splendid for milk production; under suitable conditions it will last several years. Recommended for sowing with Oats or in pasture.

TRIFOLIUM INCARNATUM (or Crimson Clover).

This is an annual, a quick grower, and will stand a great deal of hard grazing. It is useful as a stubble plant sown alone or with Rye Grass after the grain crop, when it will produce a heavy crop very early the following spring.

ALSYKE (Trifolium hybridum)

Combines to some extent the qualities of Red Clover and White Clover. It will sometimes succeed where Red Clover does no good, and can be classed as permanent in suitable locations.

BERSEEM (or Egyptian Clover). (Trifolium Alexandrinum)

An annual clover which **must be sown in early autumn** as it makes its growth during the autumn, winter and early spring months. Sown in early autumn in a favorable locality, it will give two and even three cuttings of valuable Lucerne-like greenstuff during the winter and early spring. It can also be sown in the autumn with Oats, and after being grazed for a time it can be cut in the spring with the Oats for hay.

BOKHARA CLOVER (or White Sweet Clover) (Melilotus alba)

This is a Clover with a big reputation for renovating land for green manuring and for preparing land for the introduction of Lucerne. The plant makes very big root growth and, being a biennial, the plant dies out after the second year and the big root growth rots down very quickly.

Bokhara can be grazed profitably by all classes of stock, the fodder value, by analysis, being extremely high. There is practically no danger of bloat with this Clover and it is a great milk producer. It is also an excellent honey plant.

If used as a rotation crop it can be ploughed in either the first or second year according to circumstances. Seeding does not take place until the second year and so long as this is prevented there is no danger of the plant getting out of control.

This plant should not be grown in wheat paddocks. Sow 8 lbs. to 10 lbs. per acre broadcast, or 5 lbs. in drills.

PRICES

As the harvesting is not complete at time of going to press, it is not possible to quote Prices in this Descriptive Catalogue.

We issue at intervals Price Lists of all these lines and we ask customers to write for our current issue of Farm Seed Prices whenever they are in the market.

FOUR USEFUL
CLOVERSYates Superfine
Perennial Red CloverYates Superfine
White CloverTrifolium incarnatum
(Crimson Clover)Berseem
(Egyptian Clover)

CLOVERS (Continued)

YATES' A.Y. SUBTERRANEAN CLOVER

(Trifolium subterraneum)

WE are convinced that Subterranean Clover will play a most important part in farming practice in a great many parts of this State. Where soil and seasonal conditions are favorable this Clover will produce more high-class fodder than almost any other plant.

As to soil requirements, this plant accommodates itself to a very wide range, and indeed, we think that its great value as a "soil improver" will cause it to be sown on a great deal of second-class land to the great benefit of the soil, and resulting in bigger returns to the land-holder. Subterranean Clover responds readily to phosphatic manures so that Super can be used with advantage.

Climatic conditions required are a fairly regular Autumn to Spring rainfall. It should do well in this State on all parts of our coast and tablelands, and parts of the western slopes where the rainfall exceeds twenty inches.

Its main use is for grazing green, or when matured as a dry feed. In addition, it is a great soil improver, and of great value in choking out undesirable weed growth.

It is only an annual, but as it produces most of its seed just below the surface of the soil (hence its name), it is in practice perennial, and once introduced and properly established, it is permanent.

We recommend sowing in all mixtures of grasses at the rate of half to 1 lb. per acre. Sown with cereal crops 2 lbs. per acre should be sufficient, while if sown alone on properly prepared land, from 4 lbs. to 6 lbs., and even up to 10 lbs. per acre may be planted, according to the quality of the land. Smaller sowings may be made if time is allowed for the clover to spread, which it does very rapidly. In our Paspalum country it should be specially welcome, as it has proved in similar country in north N.Z. to be of great advantage in preventing the formation of close "mats" and in providing a better balanced ration.

STRAWBERRY CLOVER

(Trifolium fragiferum)

An excellent variety for low, wet, swampy land subject to floods or inundations through the backing up of tide water. This plant has a trailing habit, and thrives where no other Clovers and very few grasses will grow; in our opinion, it should be associated with Water Couch. If one pound or so per acre is sown in suitable situations, it will very soon spread. It is very largely grown in portions of Gippsland, where the land is swampy, and is found to be very fattening. Cattle do particularly well on it.

SHEARMAN'S CLOVER—Similar to the above and probably a variation; root only of this variety.

ENGLISH TREFOIL

(Medicago lupulina)

An annual Clover succeeding in light dry soils, greedily eaten by sheep. It has good bold seed.

LOTUS (Varieties).

LOTUS CORNICULATUS (Birdsfoot Trefoil)—A deep rooting perennial Clover maturing the second year, and producing a large quantity of leafage.

LOTUS MAJOR—Land that requires draining can often be improved with this Clover.

LOTUS ANGUSTISSIMUS—A hardy Clover which does well in rough country and should be very suitable for sowing on burns.

MEDICAGO ORBICULARIS

(Burrless or Button Trefoil)

This is a variety of Trefoil Clover which has attracted attention in Tamworth and other Northern districts. It is very similar in its growth and appearance to our Native Trefoil or Burr Clover, but the seed is not enclosed in a burr; this is manifestly a great advantage to woolgrowers. It is an annual, but seeds itself so profusely that it comes up every spring, and is permanent when once introduced.

MEDICAGO DENTICULATA

(Burr or "Native" Trefoil)

This is an introduced member of the Clover family but has become so widespread that it has earned the title of "Native." It is now one of the commonest plants in N.S.W. and furnishes a tremendous amount of feed. It grows with the first good autumn rains giving a heavy yield of lush green fodder throughout the winter and spring. With the approach of summer the plant ripens off and the seed, falling on the ground, then forms a most valuable and highly concentrated food. This the sheep will lick up from the ground and do well on it. Country that grows this Trefoil is essentially fattening country. The burrs are a great disadvantage in purely wool growing country.

Seed Tables of GRASSES and CLOVERS

SUGGESTED FOR PASTURES UNDER VARIOUS CONDITIONS.

The following tables give the mixtures of Grasses we recommend per acre or both warm and cool climates. It is, of course, understood that the sowing of Artificial Grasses should only be undertaken in districts where the rainfall is adequate; for our dry inland districts usually the Native Grasses only are hardy enough to withstand the extremes of climate. In some cases Rhodes Grass has been found to succeed.

On another page we give a few suggestions on the sowing and after management of newly sown paddocks.

Where it has been found by experience any particular grasses or clovers are not suited to a particular district, or are not liked (such as, by some, Paspalum), they may be deleted and other varieties increased in proportion.

If customers will describe their soils and climates, we will always be glad to suggest a suitable mixture to sow.

MODERATELY WARM CLIMATE WITH GOOD RAINFALL

GOOD LOAMY PLOUGHABLE LAND

A. Permanent Pasture

- 5 lbs. Cocksfoot, Re-cleaned
- 3 „ „ Prairie, Re-cleaned
- 3 „ „ Perennial Rye Grass
- 3 „ „ Italian Rye Grass
- 4 „ „ Paspalum
- 4 „ „ Rhodes Grass
- 1 „ „ Couch
- 1 „ „ Danthonia (Wallaby Grass)
- 1 „ „ Red Clover
- 1 „ „ Berseem or Egyptian Clover
- 2 „ „ White Clover
- 1 „ „ Lucerne

31 lbs. per acre

SECOND CLASS PLOUGHABLE LAND

Permanent Pasture

B. This should be dressed with ground or air slaked lime when the land is ploughed.

- | | |
|--|---|
| <ul style="list-style-type: none"> 1 5 lbs. Cocksfoot, Re-cleaned 3 „ „ Perennial Rye Grass 2 „ „ Italian Rye Grass 3 „ „ Danthonia (Wallaby Grass) 1 „ „ Couch Grass 2 „ „ Cheving's Fescue 3 „ „ Rhodes Grass 5 „ „ Paspalum 1 „ „ Red Clover 2 „ „ White Clover 1 „ „ Lucerne 1 „ „ Berseem Clover 2 „ „ Sheep's Burnet 2 „ „ Rib Grass 1 „ „ Chicory | <ul style="list-style-type: none"> 2 3 lbs. Paspalum Dilatum 4 „ „ Cocksfoot, Re-cleaned 4 „ „ Tall Fescue 6 „ „ Perennial Rye Grass 3 „ „ Phalaris Bulbosa 3 „ „ Danthonia 2 „ „ Red Clover 2 „ „ Lucerne |
|--|---|

34 lbs. per acre

FOR SOWING AFTER BUSH BURNS

C. Permanent Pasture

The grass seed should be sown at once after burns to get advantage of the first rains. It will then come on very quickly.

Where it is preferred to sow the varieties separately, it is usual to sow the Rhodes Grass on the hills and the Paspalum and Clovers on the flatter and moister country.

- 5 lbs. Paspalum
- 10 „ „ Rhodes Grass
- 2 „ „ Danthonia (Wallaby Grass)
- 2 „ „ Couch Grass
- 2 „ „ White Clover
- 1 „ „ Berseem or Egyptian Clover
- 1 „ „ Red Clover

23 lbs. per acre

COOL MOIST CLIMATE WITH GOOD RAINFALL.

D. GOOD LOAMY PLOUGHABLE LAND

Permanent Pasture

A dressing of 5 cwt. per acre of ground limestone or air slaked lime will benefit this class of soil and encourage the growth of Clovers.

- 10 lbs. Rye Grass, Perennial Old Pasture
- 3 „ „ Italian Rye Grass, Re-cleaned
- 3 „ „ Prairie Grass, Re-cleaned
- 7 „ „ Cocksfoot, Re-cleaned
- 1 „ „ Meadow Fescue
- 1 „ „ Cheving's Fescue
- 1 „ „ Crested Dogtail
- 1 „ „ Kentucky Blue Grass
- 1 „ „ Lucerne
- 3 „ „ Cow Grass Clover
- 2 „ „ White Clover
- 1 „ „ Trefoil
- $\frac{1}{2}$ „ „ Alsike Clover
- $1\frac{1}{2}$ „ „ Rape

36 lbs. per acre

E. SECOND CLASS PLOUGHABLE LAND

Permanent Pasture

A dressing of 2 cwt. per acre of bone-dust will much increase the growth of the Grasses and Clovers.

- 10 lbs. Cocksfoot, Re-machined
- 3 „ „ Rye Grass, Perennial Old Pasture
- 2 „ „ Italian Rye Grass, Re-cleaned
- 3 „ „ Tall Fescue
- 2 „ „ Cheving's Fescue
- 5 „ „ Danthonia
- 1 „ „ Red Top
- 2 „ „ Sheep's Burnet
- 2 „ „ Red Clover
- 2 „ „ White Clover
- $\frac{1}{2}$ „ „ Subterranean Clover
- $\frac{1}{2}$ „ „ Lotus Major
- 1 „ „ Lotus Angustissimus
- 1 „ „ Chicory
- 1 „ „ Rape

36 lbs. per acre

F. PEATY OR HEATH LAND, INCLINED TO BE SOUR

These soils are much benefited by a liberal dressing of ground limestone or air slaked lime, say 5 to 8 cwt. per acre, and will liberally repay the cost; when the land is again ploughed a further dressing of bone dust will be advisable. With suitable manuring and seeding these soils can be changed into first class pasture, and after a few years will carry the more nutritious grasses.

- 5 lbs. Perennial Rye, Old Pasture
- 3 „ „ Italian Rye Grass, Re-cleaned
- 5 „ „ Cocksfoot, Re-cleaned
- 5 „ „ Danthonia
- 3 „ „ Yorkshire Fog
- 5 „ „ Red Top
- 1 „ „ Rib Grass
- $\frac{1}{2}$ „ „ Chicory
- 1 „ „ Lotus Major
- 2 „ „ Lotus Angustissimus
- 1 „ „ Sheep's Burnet
- $\frac{1}{2}$ „ „ Subterranean Clover
- 1 „ „ Rape

33 lbs. per acre

COOL OR WARM CLIMATE WITH GOOD RAINFALL

G. SANDY POOR LAND WITH REGULAR AND SUFFICIENT RAINFALL

These light soils benefit much by liming (air slaked or ground limestone) and then sowing the following mixture in the autumn. After two years or so, the paddock may be re-ploughed, dressed with bone-dust (2 cwt. per acre) and sown again with a mixture of the more nutritious grasses.

- 10 lbs. Danthonia
- 3 „ „ Melilotus Alba (Bokhara or Sweet Clover)
- 3 „ „ Melilotus Indica (King Island Melilot)
- 2 „ „ Subterranean Clover
- 2 „ „ Lotus Angustissimus

20 lbs. per acre

H.

RENOVATING LAND CONTINUALLY UNDER OATS

Land which has been continuously under Oats may be improved and brought back to a fertile condition by sowing only every second year and instead of sowing only Oats, using the following mixture. The first season after sowing, the Oats will provide grazing during the winter and spring or if left a hay crop; by next autumn the Grasses and Clovers will have taken possession, and at the end of the second year can be ploughed in. We strongly recommend a dressing of 2 cwt. of bonedust or superphosphate before the land is ploughed. The Oats should be sown first, requiring much deeper planting than the Grass and Clover seed, which are best surface sown after the main harrowing and merely covered with a brush harrow or light roller.

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. 5 lbs. Perennial Rye Grass, Re-cleaned 3 „ „ Italian Rye Grass, Re-cleaned 5 „ „ Prairie Grass, Re-cleaned 4 „ „ Red Clover | <ul style="list-style-type: none"> 1 lb. Yellow Trefoil 2 „ „ Berseem or Egyptian clover 1 bushel Re-cleaned Algerian Seed Oats |
|---|--|
- When it is not convenient to rest the cultivation paddock every second year, we recommend a dressing of manure, say, $1\frac{1}{2}$ cwt. per acre each year, and sowing the following:—
- | | |
|---|--|
| <ul style="list-style-type: none"> 2. $1\frac{1}{2}$ bushels Algerian Oats, Re-cleaned $\frac{1}{2}$ bushel Grey Peas | <ul style="list-style-type: none"> 3 lbs. Berseem or Egyptian Clover 1 „ „ Crimson Clover (Trifolium Incarnatum) |
|---|--|

In very cold climates, say, where Citrus Fruits will not thrive and where the Peas and Berseem will not survive the winter, Tares and Crimson Clover may be substituted. The Clovers make most growth in the spring.

SPECIAL QUOTATIONS FOR THE ABOVE MIXTURES MAILED ON APPLICATION.

LUCERNE

THE KING OF FODDER CROPS

"The crop that gives a continual harvest without an annual ploughing or seeding."

YEAR by year this King of Fodder Crops is proving its adaptability to varying situations, soils and climates. At one time it was thought that it would be a sheer waste of seed to sow anywhere but on choice alluvial flats; but now we find Lucerne extensively grown on **ordinary good agricultural land** and even on **hilly upland country**. Of course it is not suggested that such heavy growths or so many cuts in the season occur on the hilly land as are produced on typical Lucerne flats, but even where Lucerne does only moderately well **there is no other crop to compare with it.**

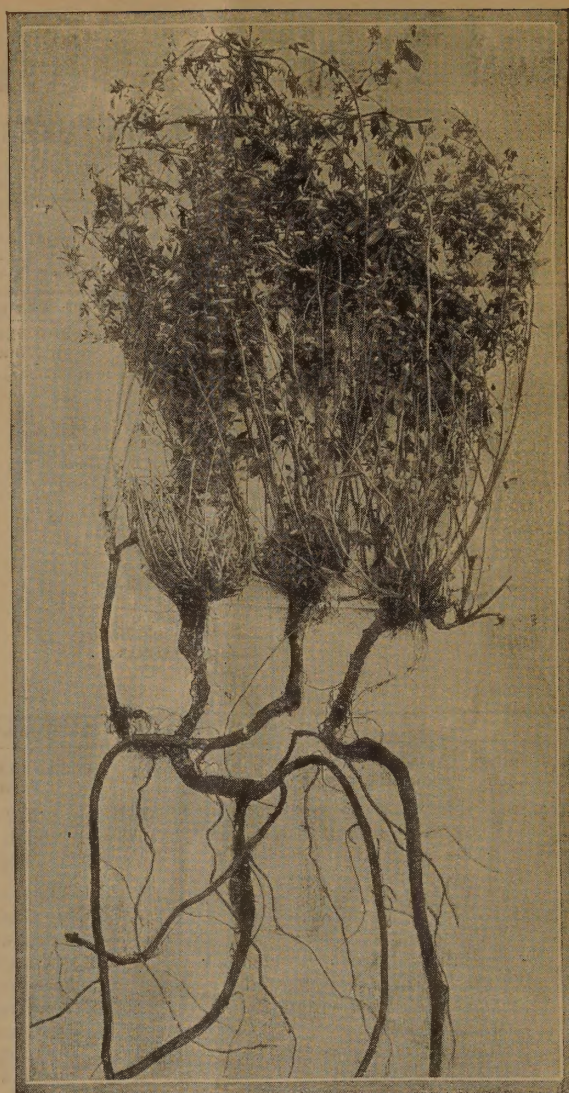
Many of our coastal dairying districts are capable of growing good Lucerne.

Its great value for milk production, for hay crop, for grazing and for poultry, makes Lucerne of almost universal interest, and it is worth while for every farmer to find out for himself if Lucerne will succeed on part of his holding.

The point we would emphasise here is that the "range of adaptability" of Lucerne, once considered limited, has now been proved to include soils and conditions ranging from rich alluvial flats—where one may reckon on five, six, or even more cuts per annum for ten years or so—to any reasonably deep good agricultural land with a rainfall of say 20 inches or over, where good "grazing" Lucerne can be successfully grown, giving the land a much heavier carrying capacity and a wonderfully quick "shoot" after rain.

In years to come we think that Lucerne will be equally valued by Australian farmers for the wonderful grazing it affords as for its hay making qualities. The amount of suitable land for growing continuous heavy crops of hay is limited as is also the available labor for hay making and the ready market for Lucerne Hay, but there are thousands of square miles suitable for growing grazing Lucerne, and which would give one good cutting of hay per year if required, and during the remainder carry three to four times the sheep per acre as compared with the natural grass or herbage, and would fatten them at the same time; for lambing ewes or for topping off lambs or grown sheep nothing can equal Lucerne. Some farmers believe that Lucerne will not stand grazing, they have seen Lucerne paddocks eaten out in times of drought, when it was the only green feed available, and were thus greatly overstocked. Of course, no perennial plant will stand continuous overstocking, but it is wonderful the amount of stock Lucerne will carry even in dry seasons if it is properly managed. Lucerne should not be continuously grazed heavily, but if it is allowed to grow till it begins to flower, or as near that stage as possible, then it can be heavily stocked and eaten right down; this process can be repeated several times in a season, and if there are three or four separate paddocks in Lucerne they will afford constant grazing. During the winter, however, provided the heart of the plant is not eaten out, Lucerne can be fairly continuously grazed. If a spring tooth cultivator is put over the land occasionally and the surface torn up, the response in the extra growth of Lucerne will be beyond belief.

This course should be followed at least once each year, preferably in the early spring before the Lucerne commences to grow, but a second cultivating in the late summer will well repay its cost. Providing the cultivator tines are



sharp pointed no fear need be entertained about putting the machine well down into the ground. The strong roots stand a deal of knocking about. The sharp pointed tines slip past the tap roots and do not cut them off completely. We strongly recommend cultivating both ways up to six inches deep. A dressing of one cwt. of superphosphate per acre each year will add wonderfully to the yield and encourage quick growth.

The paddock will look like a fresh fallow when the cultivator has done its work, but, within a week, if there is any moisture in the soil at all the fresh shoot will show through and in a fortnight a strong succulent growth will be evident. If this is a spring growth, allow it to come just to the beginning of the flowering stage and then cut for hay. If you have cultivated in the early autumn the resultant growth can be grazed during the winter as described. The great importance of a late winter or early spring cultivation is two-fold. Firstly, the growth is stimulated remarkably; secondly the ground is cleared of thistles, barley grass and trefoil, and your early summer crop of hay will be a clean one. It is always advisable to let the Lucerne grow to maturity once each year, that is to the flowering stage. The spring crop is the best, and this can profitably be made into hay. Even if there is no immediate use or market for it an accumulation of Lucerne Hay is a reserve against times of drought and scarcity that will come in most opportunely sooner or later. One of the great advantages of Lucerne Hay if protected from the rain is, that it does not deteriorate by age or by the ravages of vermin.

(Continued next page)

YATES BROADLEAF A.Y. GIANT-UPRIGHT LUCERNE

(Continued from previous page)

Grazing Lucerne will do well on any country, hilly or flat, provided the following conditions are fulfilled: The plant is essentially a deep rooter and a lover of moisture. But so hardy is its nature that it is capable of penetrating to great depths in search of moisture. In most country, with a fair average rainfall, say, from twenty inches, soil of the right type for Lucerne retains its moisture through most dry spells at a depth Lucerne is capable of reaching. This will not necessarily be enough to cause growth, but the plant will remain in a semi-dormant state and will respond at once to any shower of rain. But the Lucerne tap root must be able to get down, therefore very shallow soils with a stiff-clay close to the surface are not suitable for this crop. The soil besides being reasonably deep must also be "sweet," it must not be deficient in lime. Most of the soils west of the dividing range in New South Wales are "sweet" enough for Lucerne. Some of the coastal soils are not "sweet" in the sense that they are deficient in lime. Such soils can be made to grow Lucerne well by top dressing with lime. This has been proved at Exeter.

Suitable hilly land if planted with Lucerne will carry four to six sheep per acre for the greater part of the year. Rich moist creek or river flats will of course carry much more, but we consider such land more suitable for hay; stock should only be grazed on alluvial land when it is dry and the Lucerne reaching maturity, otherwise the surface will be trodden hard and the plants injured. Cattle, par-

ticularly dairy cows and working bullocks, as these are usually hungry and eat greedily, are apt to become blown or hoven if grazed on young succulent Lucerne, especially if it is damp with rain or dew; it is found however on the dairy farm at Exeter, N.S.W., that a few acres of Lucerne, which were planted about ten years ago, is the most valuable grazing area on the estate; the cows after milking are put on to this patch for an hour or so in suitable weather only, and when this care is exercised no cows are lost and the milk yield is very largely increased. Treated in this way there is no outlay for hay making, while the full benefit of the enormous yield of Lucerne is obtained. This Lucerne paddock is regularly spring-toothed at the end of each winter, and every year it is dressed alternately with superphosphate or air slaked lime. This paddock is on the top of a rich volcanic hill, the soil is chocolate and very deep. When cattle are continuously grazed on Lucerne they are no more subject to blowing than they would be on trefoil and other leguminous herbage common in the western districts of New South Wales, but care is required that the cattle are not hungry when they are first put on to the Lucerne or any other clover, especially in damp weather or when the plant is wet with dew. As compared with the native clovers, Lucerne has the very great advantage of growing during the summer and early autumn when the wild herbage and trefoil is burnt up and green fodder is usually not available.

YATES BROADLEAF A.Y. GIANT-UPRIGHT LUCERNE

YATES' BROADLEAF A.Y. GIANT-UPRIGHT LUCERNE in sealed bags is re-machined and tested seed of a superior extra prime quality type of N.S.W. grown Lucerne, which is sown on selected farms in those districts in which owing to special natural conditions, there has been evolved a long standing drought resisting strain, which has proved itself for Australian conditions.

Most of these farms have supplied the seed crop to us, for many years past, and we know that it is of the true Broadcast Giant Upright pedigree.

YATES' BROADLEAF A.Y. GIANT-UPRIGHT LUCERNE is supplied through our country agents in 25 lbs. and 50 lbs. net sealed bags, printed with our own brand, or will be supplied direct to farmers in whatever quantities required. Growers should exercise caution, and accept only packages closed with our metal seal, and branded as above.

WRITE FOR PRICES, STATING QUANTITY REQUIRED

Sixteen to twenty pounds per acre is a fair sowing for good situations with a moist subsoil if sown broadcast; or ten to twelve pounds if drilled. In dry areas as low as six pounds is found sufficient.

A customer in British East Africa writes:
April, 1924.

"A friend of mine, ———, Manager of a big estate of some 40,000 acres in this district was very much struck by my brother's Lucerne, and asked me how he could obtain some to plant before May. If we, in this district leave it until September, our other planting season, it is eaten off by cut worm. So this meant losing a whole year, unless he went in for some other brand, which I strongly advised him not to do, as there is nothing that can come up to your Hunter River Broadleaf, though some four or five different kinds have been tried to my knowledge from different countries in the world. So I took the liberty to tell him to cable for it in my name."

Mr. F. C. M——, Kerang, Vic.

May 7th, 1924.

You have been recommended to me by the Supervisor of this new Settlement; he told me that he had wonderful results from "Lucerne" Seed supplied by you; he also told me that the P—— Bros., of Tongala, sowed Lucerne Seed supplied by you in last week of September, and up to March had taken three cuttings, this takes some beating."

Write for Yates' Booklet on
LUCERNE GROWING Post Free
It will give you much information.



A typical stand of cutting Lucerne on rich alluvial flats. During a large part of the year this is cut every four to six weeks.

Yates' ^{DWARF ESSEX} A.Y. BROAD-LEAF Sowing Rape

Sowing Rape is the most profitable of all annual sheep fodders.

Sowing Rape is the best change or rotation crop for the wheat farm.

Sowing Rape is very valuable as a soil renovator.

Yates' Dwarf Broadleaf is the best and most vigorous strain, and every line heavily re-cleaned and tested, and sold in sealed and branded bags.

Write for current quotations.

RAPE is the great fodder plant for sheep husbandry in Australia, and with the widespread recognition of the value of combining sheep and wheat, Rape is now becoming a very important crop on the wheat farm, not only for sheep feed, but also a rotation crop and for renovating wheat land. The cost of the seed is so little, and the cultivation so simple, that it cannot fail to be much more largely used.

If paddocks, which are showing signs of exhaustion under wheat, are ploughed, and a crop of Rape sown, say early in March, it will give an enormous quantity of sheep feed during the winter and following spring, which will fatten ten or twelve sheep to the acre for some months; and if during the following summer, the remains of the crop and sheep droppings are ploughed in, the land will be very much enriched, and if sown with wheat again, a greatly increased yield will result. It is easy to see how profitable it is to utilise the land in this way. Even if, owing to unfavorable seasons, the crop of Rape comes to nothing, there is very little lost, as the cost of seed is so little. Rape is equally good for pig feeding or even cattle, so long as it is not given in quantity to milking cows, as it is apt to taste the milk.

Where large breadths of land are not available, there are often paddocks about a homestead which will give enormous yields of fodder if sown with Rape, and which would be particularly valuable for feeding stock during the scarce season; they all eat it greedily.

Sheep put on to Rape fatten very quickly; even old broken mouthed ewes, that would starve on an ordinary pasture, very soon put on flesh, and

are fit for the butcher. They should, however, be sent to market as soon as they are "topped off," as if put back on to grass they very soon lose condition again. As a means of fattening lambs for the English market, there is nothing to equal Rape; they are soon in the pink of condition as required for the export trade, and if there are two or three paddocks of Rape, so that as soon as eaten down, each paddock can be "spelled" the plants soon recover and give a second or third crop almost as good as the first; in fact, if sown in the early autumn it should give several months' feed.

Poultry farmers are finding a small patch of Rape a valuable asset, and for this purpose small successional sowings should be made through the autumn and again in the spring.

Some growers prefer to sow it with Rye Corn, say half-bushel of Rye and two pounds of Rape; others sow it with Mustard, using half-a-pound with four pounds of Rape per acre. The inclusion of Mustard corrects the tendency of Rape to sometimes scour.

We recommend sowing in February, March or April, after the good autumn rains, but as early as possible after the middle of February. It can also be sown with advantage in the early spring, especially in the cooler districts. It is extremely hardy. The land should be deeply ploughed and well worked, but if sown on stubble land, it would be enough on light soils to thoroughly stir the surface with a disc harrow; but ploughing and harrowing would be much better still. Sow three pounds per acre in drills, or four to six pounds broadcast (if drilled, so much the better). Where a machine is not available it may be sown broadcast by mixing with several times its bulk of dry soil, which will materially help to distribute the seed evenly; or it may be evenly distributed with a Cahoon or Columbia Broadcast Seed Sower. We can

supply these useful little implements—price on application. We do not recommend that Rape should be sown on poor hungry land, as it will not succeed; it requires good soil and deep cultivation, and will well repay the labor expended in preparing the land thoroughly. Where manure is employed in growing Rape (and it is a crop which quickly responds to such attention) we would recommend one rich in ammonia, say blood manure or fine bonedust; superphosphate is also used with great success.

As there are several varieties of Rape, some very much better and yielding larger crops than others, also, as many of the cheapest samples are tainted with wild mustard or yellow weed, we would strongly advise growers to buy our re-cleaned seed, and note that each bag is sealed and branded.



LEGUMINOUS CROPS FOR AUTUMN PLANTING

MARKET PEAS

In the Highland districts round Sydney and on the Tablelands, many farmers now devote a portion of their holding to the growing of green peas for the Sydney market, and in recent years this has proved very profitable. The growing of peas or beans for the vegetable market is excellent practice from a rotation point of view; it rests the land from ordinary farm crops, gives it the advantage of a leguminous crop and leaves the land in an improved condition for succeeding crops. A fair quality of land and a reasonable use of suitable manure are advisable for best results. YATES SELECTED N.Z. Grown YORKSHIRE HERO PEAS is the best main crop variety and there are also now other sorts which are rapidly coming into favour, and we shall be pleased to quote particulars of varieties available on application. Usually 2 bus. per acre is a good sowing and we advise sowing in drills far enough apart to permit frequent horse cultivation in the early stages of the crop. Prices and varieties on application.

FIELD PEAS

This is a crop which we consider does not receive the attention it deserves. It is an excellent fodder for sheep, pigs and other stock, but we think its main value is when grown as a combined "legume-cereal crop." For this purpose Field Peas are excellent sown with oats or wheat. If sown early with oats they can be grazed off once or twice during the winter and then let go dry for hay. The addition of the pea straw to oaten hay makes a much more balanced ration and is very palatable to stock.

If sown alone they may be grown for topping off to maturity and when cut fed to pigs, or they may be cut green, just after flowering, for cattle or pig feed.

This crop is classed among the best of the soil improving crops. Even if only the roots are ploughed in the soil is greatly enriched.

Field Peas though not so hardy as Tares or Vetches are earlier maturing, usually cheaper in price, and one grower reports that when grown with a cereal it will stand the trampling of grazing cattle better than will Tares under similar conditions. Field Peas can be sown in the autumn or spring, but in mild districts we prefer autumn sowing.

Sown alone $1\frac{1}{2}$ to 2 bushels per acre broadcast, or say 30lbs. in drills 2 feet apart.

Sown with cereal crop try $\frac{3}{4}$ bushel Field Peas with $1\frac{1}{2}$ bushel oats or wheat per acre.

We usually stock the Grey Field Pea and the Blue Field Pea, but for fodder purposes in N.S.W. recommend the Grey variety.

ANNUAL BLUE LUPINS

For green manuring these provide one of the best crops for ploughing in, especially in our cooler districts. When practicable we recommend autumn sowing, but they will succeed if sown in early spring. Lupins grow very rapidly and produce an immense amount of top. Sow at the rate of 2 bus. per acre. For small trials 3 lbs. will sow an area of 100 square yards (10 yds. x 10 yds.)

KUDZU VINE

(Pueraria Thunbergiana)

We have had several enquiries for this. It is a perennial legume best adapted for poor soils near the coast. We can only supply in packets and recommend that the seeds be sown in a good patch. The plants will quickly grow and send out long runners which root at every joint. These can then be severed and transplanted and the required area thus quickly covered. Packets 1/-.



Grey Field Peas, North Coast, N.S.W.

TARES or VETCHES

Grey, Black, and Golden

These are important members of the legume family and are largely grown both for fodder and as a winter green manure. In both cases it is preferable to sow in conjunction with a cereal crop, though they may be used alone as green manure. When used for feed the combination of legume and cereal gives a well balanced ration, and the upright growth of the cereal supports the Tare, which is a climbing or trailing plant. Cows milk well on Tares and it is an excellent fattening crop for pigs.

In some of the North Coast districts this crop, either alone or in combination with Rye, Oats, or Barley, is sown on the Maize flats, fed off during the winter, and in the spring the residue ploughed in for green manure.

Not only does this provide excellent winter fodder but it also maintains the fertility of the flats, thus giving better yields in the succeeding crop.

In order to encourage a quick and heavy growth, we advise the application of Superphosphate with this crop.

Tares succeed in a wide variety of soil and districts, so long as there is a good winter rainfall. Seed should be sown in early autumn from February onwards.

We would suggest a sowing of from $\frac{1}{2}$ bus. to 1 bus. Tares with a bushel or half-bushel of Oats, Rye, or Barley (or a mixture of the three).

The ratio will vary according as the main crop is intended to be the cereal or the legume. The Department of Agriculture recommend 30lbs. Tares with a bushel of grain. The seed can be mixed and broadcasted or it can be drilled in.

If sown alone up to 2 bushels per acre is ample.

HORSE or TICK BEANS

Somewhat similar in appearance of plant and habit of growth to the garden Broad Bean. They are grown in cool climates for the seeds which form excellent foodstuff. When well harvested the haulm also makes useful fodder. Sow about two bushels per acre in the autumn and early winter.

YATES' Re-cleaned SEED GRAIN

IN SEALED AND BRANDED BAGS.

IT PAYS to sow only re-machined samples. Many farmers do not yet recognise the importance of procuring the primest and purest samples of grain when sowing for hay, grain or green fodder, and for the sake of a few pence per bushel thousands of bags of the most inferior seed oats are annually sent away to our dairy farmers to grow fodder.

The sowing of Re-cleaned Farm Seeds means CLEANER CROPS, SURER CROPS, HEAVIER CROPS and what is perhaps of the most importance, CLEAN LAND.

The infesting of land with weed seeds, when, by paying a little extra price, seed which has been thoroughly re-dressed is obtainable, is surely a poor policy.

Yates' Re-cleaned Farm Seeds are the primest farmers' samples obtainable, grown in selected districts, from which the thin pinched seeds, the broken seeds and weed seeds, have been practically eliminated, and thus is sown only plump, healthy seed, which will give a good even stand, even under conditions when inferior seeds would perish.

EVERY BAG IS SEALED AND BRANDED.

BARLEY

Barley is the earliest of the grain crops to mature and in this earliness lies also its great value as a green fodder crop. It is one of the sweetest fodders grown and is relished by all classes of stock.

For the farmer's purposes, the Barleys can be classed into three, namely:—Cape Barley, Skinless Barley, and English or Malting Barleys, the two former being of the most importance to the farming community. Cape Barley is the one most generally used for green fodder; it grows very quickly, but as it is not so hardy as other grain, it is most suitable for early use in cold climates. Skinless is also a good variety, coming very early to maturity, and affording two cuttings; it should be grazed after each cutting; the close feeding seems to cause it to come again with renewed vigor. English or Malting Barley is usually grown for grain for malting purposes and this variety does best in cool climates with a comparatively good rainfall. As the only market is with the brewers, full enquiries should be made from them before large areas are planted.

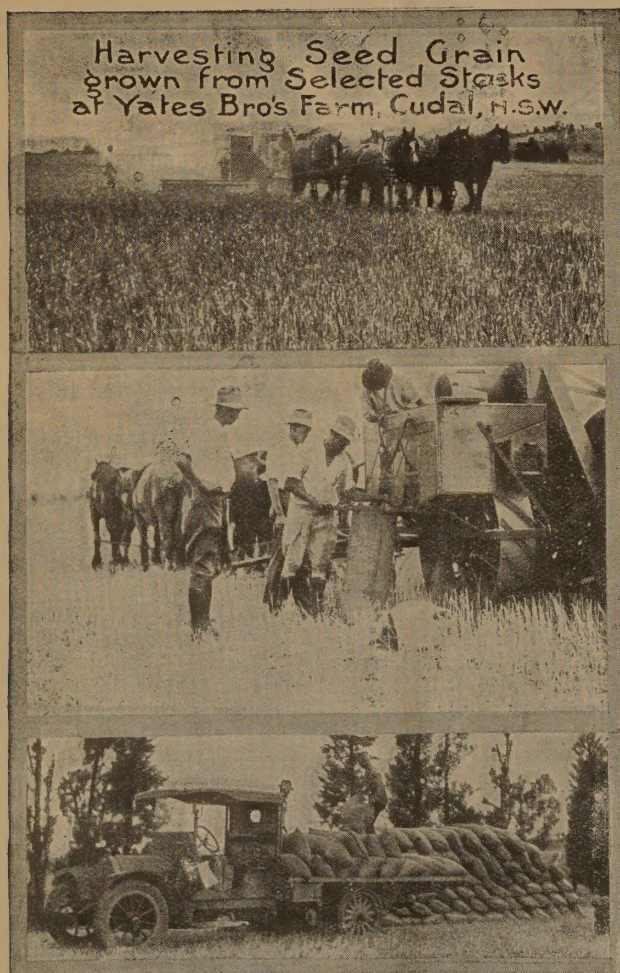
Cape and Skinless Barley both make excellent silage. The addition of Field Peas when sowing makes a combined cereal-legume crop of high nutritive value.

Barley should be sown broadcast at the rate of two bushels per acre, or if drilled one bushel should suffice.

RYE CORN (Mammoth White)

Rye is a very hardy plant, and is largely used for winter feed, especially where the climate is severe; it will stand the heaviest frost. It is particularly good when fed off; many experienced farmers preferring to use it this way, as they find their stock do best while the Rye is young.

It will stand grazing all the winter, and rapidly grows again after being eaten down. It is also used for mixing with Tares, the Rye serving to hold the Tares off the ground, Rye comes into use very early. It is also sown to advantage mixed with Rape. The straw is very valuable for thatching, and some farmers sow the headlands of their hay paddocks with Rye Corn for thatching the stacks. Sow about two bushels to the acre.



YATES' Re-cleaned SEED GRAIN

IN SEALED AND BRANDED BAGS

SEED OATS

Prime Heavy Re-cleaned Samples

The importance of sowing only re-cleaned and re-graded Seed Oats for green fodder as well as for grain is now beyond the experimental stage. The high cost of labor and high land values make it more than ever necessary to get the most out of the cultivated land. It is better to have ten acres of a really good crop than twice the area giving only an indifferent yield.

We have proved at our experimental farm at Exeter that the most profitable method of feeding dairy cows for eight months of the year is to plant **Algerian Oats** for grazing. To get the best results the cultivation land should be divided into three or four small paddocks; the crop which has been eaten down soon recovers after a few weeks' spell, but continual grazing is wasteful, not good for the crop or the cows. We recommend that a dressing of 1 cwt. of Bonedust or Superphosphate be used, also five or six pounds of Clover seed per acre be planted with the Oats—See table H, page 9. This will give a more balanced ration and so increase the milk flow; it will also make the land increasingly fertile, and give a good stubble-feeding during the following autumn.

We have found **Algerian Oats** to be by far the best variety for grazing; being of finer growth it stands a good deal of trampling and its spreading habit and strong root growth prevent it from being easily pulled out. If shut up in the early spring a crop of hay may be harvested in addition.

For cutting purposes some of the vigorous-growing early Oats like **Ruakura**, **Sunrise**, etc., may prove superior in the milder climates; these are tall-growing and have fleshy stems, and come very quickly; in fact, they grow almost as quickly as Barley and are superior to it for feeding value. They will however not stand extremes of frost like the Algerians, and, on account of their coarse fleshy growth, do not stand trampling and hard grazing so well.

Yates' Extra Prime AY Re-Machined Samples are the very pick of the lines offering, thoroughly re-cleaned and graded by our special machinery. Every grain should produce a strong well-nourished plant under proper conditions.

LIST OF VARIETIES.

Algerian—See foregoing, the best all-round variety for grazing, for green feed, for hay and for grain; stools well, and is a great drought resister.

Mulga—A selection from **Sunrise** and in many ways an improvement on that variety. It is a very early maturing variety and thus an excellent oat to sow early for winter fodder. It is a sparse stooler and should not be sown too thinly.

Sunrise—An early variety with medium coarse straw, very suitable for coastal and warm districts; not a good stooler, therefore should be sown rather thicker than Algerians. Stands feeding off well.

Guyra—Early, medium straw.

Ruakura—An early sort, thereby often escaping the rust, fine straw, medium foliage, largely grown on the coast.

Tartarian (Side Bearing)—Late. One of the earliest white grained varieties, and good for green fodder, especially on the cold highlands.

Dun—Late. Produces hay and grain of fine quality, largely used for horsefeed by racing folk.

Heavy Black—For green feed in cold climates.

Heavy White—A green fodder Oat for moist cool climates.

SEED WHEATS

Prime, Heavily Re-cleaned Samples.

Grown from Select Stocks.

A large proportion of our seed wheat supplies has been specially grown for us by Yates Bros. Ltd., Cudal, from specially re-graded seed of selected stocks.

Wheat is largely used for green fodder and for hay as well as being the world's most important grain crop. It stands dry conditions better than almost any other grain and is therefore of great value for fodder and for hay, as well as for grain in districts of low rainfall. It will often give good crops in seasons which cause oats to be a failure.

Following we give a list of varieties which we offer this season, but as supplies of some varieties are somewhat limited, early enquiries are invited. The advantages of sowing only whole plump grain free of pinched broken seeds, weed seeds and foreign matter, is now proved to be worth many, many times the slight extra cost per acre for Re-cleaned Seed; in unfavorable seasons it may mean the difference between a crop and a failure.

Sow up to 2 bushels per acre together with a dressing of 56 lbs. to 112 lbs. superphosphate per acre, according to location and quality of the land.

Prices by return post on application.

LIST OF VARIETIES.

Florence (Very early)—Stools fairly well, growth vigorous and compact, suitable for hay or grain, but especially valuable for green feeding, grazing and soiling in our coastal districts.

Thew (Early)—Medium tall, good stooling sort. Recommended for hay and for green fodder in the coastal districts where it has proved one of the best.

Canberra (Early)—A very productive grain variety and one of the best for late sowing in hot dry districts. Rather slender straw.

Hard Federation (Mid-season)—A favorite variety in the Central Tablelands, Slopes and Northern districts for grain production. Hard grain, stands feeding off. A very good all round wheat.

Federation—Although rather susceptible to rust and to bleaching, this is a very popular mid season wheat. It is a high yielding grain variety and very drought resistant.

Marshall's No. 3. (Late mid-season)—A variety as valuable as a hay wheat, as it is for grain. It is a good stooler and should be sown early. Does well throughout the wheat belt.

Yandilla King (Late)—Another variety which can be grown for both hay and grain and does well in any part of the main wheat belt. Stools well.

IT PAYS to sow only Yates' Re-cleaned Farm Seeds

R. J. J ———, Kentucky.

12/11/25

I bought some Algerian Oats from you last Winter. You will be pleased to know that the District Inspector of Agriculture very much admired it, said it was one of the best crops he had ever seen.

Mr. W. J. T ———, Macksville.

13/10/24

I am sending you a sample of Berseem Clover, grown on my place, at Bulingarry; this is a sample of the fifth cutting, and the Clover is still growing strong. If you remember, I bought 2 lbs. of seed from you and planted it in March. I am sending this as an advertisement, as I do not think the Berseem Clover can be too highly spoken of. Cattle will leave any other food to get it.

Write for Prices (and samples if required) stating quantity wanted.

Sundry Fodder Crops

FOR AUTUMN PLANTING

BURNET (SHEEPS).—This fodder plant has proved itself suitable for our dry inland country, where it would be futile to sow English grasses, and where the soil is not suitable for growing Lucerne. It thrives alike in rich or poor land, and on either flats or hills; it gives great results in the undulating land about Wagga, where neither Lucerne or Rape will succeed. It is one of our best drought resisting plants, and remains green when every other fodder is burnt up, springing again with light showers that would have not the slightest effect on the grass; it is absolutely permanent, and, when once established does not die out. It is a herb, not a grass, grows from fifteen to eighteen inches high, and has a long tap root, which enables it to stand dry weather and grow when other plants, with shallower roots, are drought-stricken. It grows both in summer and winter, giving the greatest rush of feed in the spring. All animals are fond of it, and thrive well on it, but it is particularly suitable for sheep. Sow ten to twelve pounds per acre. Burnet may, with advantage, be included in Grass Seed Mixtures for poor soils; being a deep rooter it does not rob the surface-rooting grasses, and succeeds where better grasses fail.

CABBAGE, CATTLE—In cool climates the very large late varieties have a value as cattle feed. Sow in late summer and autumn in seed bed, and afterwards transplant. Sow about half-pound for each acre to be planted out.

CHOU MOELLIER or MARROW KALE—A recently introduced variety of Kale. Of extremely vigorous growth and yields enormously. The leaves should be cut, not pulled, off the stem, and fresh growths are then formed immediately. The stem is also quite free of woody fibre, and is also greedily eaten by all classes of stock; it can be chaffed after the crop of leaves is exhausted. Sow in early autumn, two pounds to the acre if drilled, or one pound is sufficient if transplanted; the drills should be two feet apart, allowing twelve or fourteen inches between the plants. It does well, even in dry seasons, is a splendid milk producer, and does not taint the milk even if fed alone. Trial packets, 6d.

THOUSAND-HEADED KALE—Few plants will give so great a quantity of feed per acre as Thousand-Headed Kale, and all animals eat it greedily. These should all be sown in a seed-bed, and afterwards transplanted to two-and-a-half feet between the plants and three feet between the rows. For the best results sow in summer or early autumn. Trial packets, 6d.

CANARY SEED —So largely grown for bird seed. It may also be used for hay purposes, requires similar culture to wheat; sow 17 to 20lbs. per acre. Queensland grown seed, and extra large seed, Morocco grown.

CHICKORY—Valuable for its deep rooting action and withstanding droughts. Usually sown in mixtures for second class land.

LINSEED (N.Z. Grown).—This is grown either for seed, for oil purposes, or for the fibre for linen making, but requires special conditions, which intending planters should inquire into if putting in large areas.

MUSTARD.—For a quick green fodder for fattening lambs, Mustard can be recommended. Sow eight pounds per acre. It is also frequently mixed with Rape. It is ready a few weeks after sowing.

SAINFOIN, YATES' DOUBLE CUT—As it has not proved to be in demand here we have ceased to carry regular stocks but will specially import for anyone requiring a quantity. It does exceedingly well on the chalk soils of the south of England.

SWEDE TURNIPS

Swedes can be grown cheaply and with comparative ease on much of the upland country of N.S.W. not only for stock but for the vegetable market. For sheep they make an excellent fodder especially as they become available during the winter and early spring when most needed. Sowing should be made in February, March and April at the rate of two to three pounds per acre in drills about two feet six inches apart. Up to one hundred weight of superphosphate will cause considerable increase in weight and vigor of crop.

YATES' CHAMPION PURPLE TOP—A standard globe-shaped variety, which gives wonderful returns and is the standard sort for growing for market. Our strains are unexcelled, the crop comes in evenly and the Swedes are well shaped, large and keep well.

YATES' MONARCH—A large tankard-shaped variety, with purple top. Heavy yielder and good keeper. Excellent for stock or market growing.

FIELD TURNIPS—Valuable for providing stock feed in the winter and early spring months. They are quick growers, especially the white fleshed sorts. They can be planted when it is too late to sow Swedes, and will yield heavy crops. Sow about two pounds per acre in drills. We usually stock leading varieties, both white and yellow fleshed.

MANGOLDS AND SUGAR BEET—Wonderful milk producers, and yield immense crops. Sow about September-October; in warm climates an autumn sowing will give a fine winter crop. Plant in well worked clean land, in drills thirty inches apart, to allow horse cultivator to work, and when up hoe to remove any growth of weeds, and if necessary, thin out to allow the roots to develop. Five pounds per acre of Mangolds and about eight pounds of Sugar Beet are fair sowings. The best varieties are:—

Yates' Mammoth Long Red.	Golden Tankard
Yates' Champion Yellow Globe	Long Yellow
Sugar Beet Wanzleben	Giant Half Sugar Mangold

SALT BUSH—The preservation of our Native Salt Bushes has been very much neglected. All they require is protection from stock, so that they may seed themselves, which they do most readily. Salt Bush thrives in dry arid districts, where it is difficult to grow the usual fodder plants. They are easily raised from seed or cuttings. One pound should seed an acre.

KURRAJONG (Sterculia Diversifolia)—Many stock owners have to fall back on anything at all edible for the stock during drought, and as a last resort, the foliage of this tree has considerable value, as well as being very ornamental and enhancing the value of property,

TAGOSATE (so called Tree Lucerne)—Suitable for hedges or breakwind and a stand-by against droughts.

Yates

CURRENT
PRICE LIST

of Recleaned
and Tested
FARM SEEDS

CONDITIONS OF SALE AND NON-WARRANTY

We believe that all Seeds, Bulbs, and Roots sold by us are of the description and kind specified by us at the time of sale, but owing to the practical impossibility in many cases of being certain of this, we give no undertaking that such Seeds Bulbs or Roots will correspond with the description under which they are sold, and we make all sales subject to this condition. We further give no warranty, expressed or implied, as to their growth, description, quality or productiveness, and will not be in any way responsible for the crop. If the purchaser does not accept the goods sold to him on these terms, they are at once to be returned to us, and any money paid to us will be refunded.

ARTHUR YATES & CO. LTD.

ARTHUR YATES & CO LTD
184 & 186 SUSSEX ST SYDNEY

POSTAL ADDRESS, 2707 G.P.O.

TELEGRAMS, SEEDSMAN SYDNEY

Yates Recleaned & Tested Farm Seeds

Current Price List

THE PRICES quoted herein are those ruling at this date. Quotations are subject to sales and to market fluctuations. Orders should be accompanied by remittance for the approximate amount of the order, and including freight when goods are required by coastal steamer or by passenger train. Please add exchange to country cheques. Orders sent by goods train are consigned, carriage forward (except to unattached platforms). unless we are otherwise instructed at time of order. We deliver seeds on rail or wharf, Sydney, after which seeds are on customer's account, and at his risk. Grass and Fodder Seeds (except Seed Grain) are invoiced at net weights, and bags charged for. This is to buyer's advantage. Our terms for all Agricultural Seeds are strictly Net Cash. Samples of any lines sent for inspection.

GRASS SEEDS.

NATIVE VARIETIES.

Danthonia (Wallaby Grass) ...	2/2	lb.
Mitchell Grass (Astrebla) (to arrive) ...	7/-	lb.
Australian Blue Grass (Andropogon) ...	6/6	lb.
Coolah Grass ...	*	lb.
Native Millet ...	*	lb.
Flinders Grass ...	*	lb.

INTRODUCED VARIETIES

Rhodes Grass ...	1/2	lb.
" " 56lbs. and over ...	1/-	lb.
Paspalum Dilatatum—		
Yates Prime hand-shaken ...	1/3	lb.
" " 56lbs. and over ...	1/2	lb.
Paspalum Compressum ...	1/9	lb.
Couch (Cynodon dactylon) ...	2/9	lb.
" " 56lbs. and over ...	2/8	lb.
Tall Oat Grass (Avena elatior) ...	1/8	lb.
" " " " over 28 lb. ...	1/7	lb.
Phalaris Bulbosa ...	6/-	lb.
Kikuyu Grass (roots only) ...	5/- per 100; 35/- 1000	
Cocksfoot, Yates Extra Heavy Re-machined ...	25/-	bus.
Prairie, Yates Finest Re-machined ...	7/6	bus.
Awnless Brome Grass (Bromus inermis) ...	1/11	lb.
over 28 lbs. ...	1/10	lb.
Rye Grass, Perennial—		
Yates Extra Heavy Poverty Bay ...	16/6	bus.
Yates Special Old Pasture ...	10/9	bus.
Rye Grass, Italian—		
Yates Heavy Re-machined ...	9/9	bus.
Westerwoldicum Re-machined ...	*	bus.
Rye Grass, Wimmera (True) ...	17/9	bus.
Poa pratensis (Kentucky Blue Grass) ...	2/-	lb.
Poa trivialis ...	1/11	lb.
Poa nemoralis ...	2/11	lb.
Texas Blue Grass (roots only) ...	7/6 per 100	
Elephant Grass (cuttings only) ...	7/6 per 100	

Fescue, Tall ...	1/-	lb.
Fescue, Chewings ...	1/2	lb.
Fescue, Meadow ...	11d.	lb.
Agrostis canina (Brown Top) ...	3/7	lb.
Agrostis vulgaris (Red Top) ...	1/4	lb.
Agrostis stolonifera (Creeping Bent or Fiorin) ...	2/2	lb.
Teff Grass ...	1/6	lb.
Timothy ...	1/2	lb.
Meadow Foxtail ...	2/-	lb.
Crested Dogstail ...	1/6	lb.
Yorkshire Fog ...	9d	lb.
Rib Grass, or Lamb's Tongue ...	7d	lb.

CLOVER SEEDS.

White, Yates' AY Superfine ...	2/4	lb.
" " " " over 28lbs ...	2/3	lb.
Wild White (English grown) ...	10/3	lb.
Cow Grass, Yates Superfine, N.Z. ...	1/7	lb.
Perennial Red, Yates N.Z. grown ...	1/7	lb.
Perennial Red, Fine Imported ...	1/6	lb.
Crimson (Trifolium incarnatum) ...	1/-	lb.
Alsike ...	1/2	lb.
Berseem (Egyptian Clover) ...	1/6	lb.
Subterranean Yates' AY ...	6/1	lb.
" " 28 lbs. and over ...	5/11	lb.
Strawberry (Shelled Seed) ...	10/9	lb.
English Yellow Trefoil (Medicago lupulina) ...	11d	lb.
Lotus corniculatus ...	3/-	lb.
Lotus major ...	5/3	lb.
Lotus Angustissimus ...	1/5	lb.
Medicago orbicularis (Burrless Clover) ...	1/6	lb.
Medicago denticulata (Burr or Native Trefoil) Shelled Seed ...	1/3	lb.
Bokhara (Melilotus alba) ...	1/6	lb.
Sainfoin ...	1/6	lb.

[PLEASE TURN OVER]

SPECIAL NOTICE

We wish to draw attention to the fact that this year good supplies are available of:—

PHALARIS BULBOSA
BROMUS INERMIS
WIMMERA RYE GRASS
TALL OAT GRASS
SUBTERRANEAN CLOVER

all of which have been in more or less short supply during recent years.

The present is therefore a very favourable time to make sowings of these lines, all of which have proved to be of great value for the N.S.W. Coast and Tablelands, and similar country in the other States.

Descriptions will be found in this Farm Seed Catalogue and prices in our Current Price List of Farm Seeds which is also enclosed.

ARTHUR YATES & Co. Ltd.

184-186 SUSSEX STREET, SYDNEY.

Postal Address: BOX 2707 G.P.O. SYDNEY

LUCERNE.

Yates' A.Y. Broadleaf Giant Upright—This is the proved best strain for all purposes and Australian conditions. For full information see Yates' Lucerne Booklet. Supplied only in sealed and branded bags

25 lbs. 2/9 lb.; 50 lbs. 2/8 lb.

Small lots under 25 lbs.	...	...	2/10 lb.
25 lbs. and over	...	...	2/9 lb.
50 lbs. and over	...	...	2/8 lb.
5 cwt. and over	...	...	2/7 lb.
10 cwt. and over	...	...	2/6 lb.

LEGUMINOUS CROPS.

(OTHER THAN CLOVER AND LUCERNE)

Market Beans—See Market Garden Crops			
Cow Peas—Black Seeded	...	25/-	bus.
„ „ Clay Coloured	...	*	bus.
Soy Beans—Early Black, Ito San & Manch	...	1/-	lb.
Velvet Beans	...	1/3	lb.
Market Peas—See Market Garden Crops			
Peanuts—Large White Chinese	...	1/6	lb.
„ „ over 14 lbs	...	1/4	lb.
„ „ Red Spanish	...	1/3	lb.
„ „ over 14 lbs	...	1/1	lb.
Field Peas—(Prime Seed Samples)			
Grey or Partridge	...	10/3	bus.
Blue	...	12/6	bus.
Dun	...	9/6	bus.
Lupin, Annual Blue	...	17/6	bus.
Tares or Vetches—Golden	...	19/6	bus.
English Grey	...	14/6	bus.
Large Scotch Grey	...	19/6	bus.
Horse or Tick Beans	...	14/9	bus.
Kudzu Vine (in packets only)	...	1/-	pkt.

SEED MAIZE

SELECTED AND REGRADED SAMPLES

Stocks are not all in store yet, but we expect to supply at following Prices.

Early Morn	...	...	bus.
Ninety Day (Victorian)	...	...	bus.
Small Early Leaming	...	...	bus.
Small Early Red Hogan	...	...	bus.
Silvermine	...	...	bus.
Funk's Early Yellow Dent	...	...	bus.
Wellingrove (or Early Yellow Dent)	...	...	bus.
Hickory King, for Fodder	...	...	bus.
„ „ for Grain	...	...	bus.
Giant White	...	...	bus.
Manning White	...	...	bus.
Selected Yellow Moruya	...	...	bus.
Goldmine	...	...	bus.
Large Red Hogan	...	...	bus.
Yellow Hogan	...	...	bus.
Yellow Horse Tooth	...	...	bus.
White Horse Tooth	...	...	bus.
Yellow Hawkesbury	...	...	bus.
Fitzroy (or Improved Yellow Dent)	...	...	bus.

SUDAN GRASS

The Great Summer Fodder Crop

Our samples are specially selected and thoroughly Re-machined.

Small lots under 28 lbs.	...	...	6d. lb.
28 lbs. and over	...	...	5½d. lb.
56 lbs. and over	...	...	42/- cwt.
5 cwt. and over	...	...	39/- cwt.
10 cwt. and over	...	...	37/- cwt.

SORGHUM

Selected Seed Samples and Mostly Cool Country Grown

Black Sorghum (Saccharatum)	...	57/6 cwt.	7d lb.
Ambercane	...	55/- cwt.	7d lb.
Planters Friend	...	36/- cwt.	4½d lb.
Saccaline	...	* cwt.	* lb.

GRAIN SORGHUM

White Yolo	...	...	1/- lb.
Feterita	...	...	* lb.
Milo	...	...	* lb.

MILLET

Japanese	...	22/6 cwt.	3½d lb.
White French	...	22/6 cwt.	3½d lb.
Hungarian	...	22/6 cwt.	3½d lb.
Siberian	...	*	lb.
Broom	...	...	6d lb.

SEED OATS.

Algerian—Yates' A.Y. Ex. Prime Re-mach.	5/11	bus.
Good Re-cleaned	5/10	bus.
56 bus. and over	5/9	bus.
Sunrise A.Y. Re-machined	5/8	bus.
56 bus. and over	6/9	bus.
Mulga AY Re-machined	6/8	bus.
56 bus. and over	7/6	bus.
Guyra	7/5	bus.
Ruakura	6/6	bus.
White Tartarian	7/3	bus.
Black Tartarian	6/6	bus.
Heavy White	7/3	bus.
Heavy Black	8/6	bus.
Dun	7/6	bus.
	*	bus.

SEED WHEAT.

Re-cleaned Samples from Select Stocks

Florence	...	9/-	bus.
Thew	...	9/-	bus.
Canberra	...	8/6	bus.
Federation	...	8/6	bus.
Hard Federation	...	8/6	bus.
Marshall's No. 3	...	8/6	bus.
Yandilla King	...	8/6	bus.

SEED BARLEY.

Cape, selected, free of smut	...	8/3	bus.
Skinless	...	9/-	bus.
English	...	8/3	bus.

RYE CORN.

Mammoth White	...	8/9	bus.
Emerald	...	8/9	bus.

SOWING RAPE.

Yates "AY" Dwarf Broadleaf Essex, 8d. lb.; 60/- cwt.

SUNDRY FODDER CROPS.

Artichokes (Jerusalem) tubers only	...	*	cwt.
Buckwheat, Japanese (50 lbs. bus.)	...	14/-	bus.
Burnet, Sheeps'	...	*	lb.
Canary Seed (for sowing) Queensland	...		
grown	...	* cwt.	* lb.
Large Moroccan grown	...	62/6 cwt.	8d. lb.
Kale, Thousand Headed	...	2/6	lb.
Kale, Chou Moellier	...	3/6	lb.
Linseed (Flax)	...	6d	lb.
Melons, Mixed Cattle	...	4/-	lb.
Mustard, Agricultural	...	1/2	lb.
Pumpkin, Mammoth Cattle	...	7/-	lb.
Pumpkin, Gramma	...	8/6	lb.
Pumpkin, Mixed Cattle	...	4/-	lb.
Silver Beet	...	1/6	lb.
over 28 lbs.	...	1/3	lb.
Sunflower, Black Seeded	...	1/6	lb.
over 28 lbs.	...	1/3	lb.
Sunflower, Striped Seeded	...	1/9	lb.
over 28 lbs.	...	1/6	lb.
Old Man Salt Bush (Atriplex nummularia)	...	5/6	lb.
Creeping Salt Bush (Atriplex semibaccata)	...	5/6	lb.
Kurrajong (Sterculia diversifolia)	...	1/6	oz.
Tagosaste (so-called Tree Lucerne)	...	4/6	lb.

ROOT CROPS.

Mangold—Yates' Mammoth Long Red,			
Golden Tankard, Long Yellow, Yellow			
Globe, Sludstrup	...	2/6	lb.
Giant Half Sugar, White and Rose	...	2/9	lb.
Sugar Beet	...	3/6	lb.
Swedes—Yates' Champion Purple Top	...	2/6	lb.
Yates' Monarch	...	2/6	lb.
Field Turnips—Best Varieties	...	2/6	lb.
Field Carrots—Varieties	...	4/6	lb.

SEED POTATOES

See Special Price List.

MARKET GARDEN CROPS.

Peas—Yorkshire Hero, Yates' Selected			
N.Z. Grown	...	22/-	bus.
Peas—Other Varieties, supplies now arriving			
apply for Price List	...	*	
Beans—Canadian Wonder Yates' Selected	...	29/-	bus.
Prime Re-cleaned	...	28/-	bus.
Broad Beans—Early Long Pod	...	17/6	bus.
„ „ Yates' Dreadnought Long Pod	...	25/-	bus.
„ „ Harlington Broad Windsor	...	20/-	bus.
„ „ Four Seeded Windsor	...	25/-	bus.
Other Vegetable Seeds—See Yates' Annual			

Lines marked * are not at present in stock, but supplies are expected a little later—write us.

ARTHUR YATES & CO. Ltd. 184-188 SUSSEX STREET, SYDNEY

Telegrams: "SEEDSMAN SYDNEY,"

Please Turn Over.

Robert G. Nall Ltd., Printers, Sydney

Broadcast Seed Sowers

For sowing broadcast Lucerne, Clovers, Sudan Grass, Millets, Pasture Grasses, etc., and small areas of Seed Grain, these machines are excellent. We use them on our own farms for sowing Lucerne, Clovers, etc., and we find them of considerable value.

CAHOON BROADCAST SEED SOWER.

A strong well-made machine capable of giving long and satisfactory service. Having filled machine and set gauge as per instructions, commence walking at ordinary pace, giving handle one complete turn each step. This will give a fine even sowing. Price, 37s. 6d.

CYCLONE BROADCAST SEED SOWER.

A neat simple machine which has proved very satisfactory in service. The seed is distributed horizontally, the power being obtained by a cranked handle very conveniently placed. Price, 27s. 6d.

COLUMBIA BROADCAST SEED SOWER.

Practical, neat, and mechanically correct in construction. Distributes seed evenly and has an automatic cut off. Accurate measuring device. Price, 27s. 6d.

FIDDLE SOWING MACHINE.

In this machine the action is obtained by a cross motion backwards and forwards which is preferred by some. Price, 27s. 6d.



Caheen Broadcast Seed Sower.

The "Federal" Lime and Fertiliser Spreader.

For enriching pasture lands and cropping areas Well and strongly made in 6 ft. 9 ft. and 12 ft. sizes, the 9 ft. being the standard size. All particulars on application.



Yates' Manures and Fertilisers.

Heavy and continuous farm crops and good quality flowers and vegetables cannot be grown without manure. Manuring comes next in importance to physical condition of soil, which in turn is dependent on proper drainage, preparation and cultivation of land.

Ordinarily there is nothing to equal stable or farmyard manure, but for farm use it is impossible to obtain in Australia in required quantities. Artificial manures however have a very great value, especially if the humus content of the soil is kept up by crop rotation and green manuring. For general purposes superphosphate is an excellent fertiliser, but the following special manures are superior for their respective crops.

For bag lots or over write for Quotations.

Manures.	Ton	Cwt.	56-lbs.	28-lbs.	14-lbs.	7-lbs.		
							s.	d.
Superphosphate	2	6	4	2	1	0	0	0
Bonedust	6	5	0	0	0	0	0	0
Blood and Bone	10	0	0	0	0	0	0	0
Sulphate of Ammonia	10	0	0	0	0	0	0	0
Sulphate of Potash	20	0	0	0	0	0	0	0
Nitrate of Soda	20	0	0	0	0	0	0	0
Yates' Plant Food	...	...	...	...	...	...	...	...
A.Y. Sweet Pea Manure	...	...	...	...	...	...	...	...
A.Y. Flowers and Shrubs Manure	...	...	...	...	...	...	...	...
A.Y. Potato and Tomato Manure	...	...	...	...	...	...	...	...
A.Y. Cabbage and Cauliflower Manure	...	...	...	...	...	...	...	...
A.Y. Onion Manure	...	...	...	...	...	...	...	...
A.Y. Pea and Bean Manure	...	...	...	...	...	...	...	...
A.Y. Pumpkin and Melon Manure	...	...	...	...	...	...	...	...
A.Y. Lucerne and Clover Manure	...	...	...	...	...	...	...	...
A.Y. Maize & Green Fodder Manure	...	...	...	...	...	...	...	...
A.Y. Maize (for Grain) Manure	...	...	...	...	...	...	...	...
A.Y. Stone Fruit & Strawberry Manure	...	...	...	...	...	...	...	...
A.Y. Citrus, Passion & Grape Manure	...	...	...	...	...	...	...	...
A.Y. Special Lawn Manure	...	...	...	...	...	...	...	...
A.Y. Rape and Root Crop Manure	...	...	...	...	...	...	...	...
A.Y. Hay and Pasture Manure	...	...	...	...	...	...	...	...
C.P.C. Powdered Carbonate of Lime	...	...	...	...	...	...	...	...

5s. 6d. per bag

Prices on Application.

THE intelligent use of these wonderful labor saving implements is a big factor in the successful working of market gardens, orchards, etc. Provided reliable seeds only are sown, regular and accurate planting followed by consistent cultivation will do more than anything else to ensure big returns. We therefore offer the following machines with every confidence. They are the strongest and most useful on the market, and have an excellent reputation for design and durability.



The Combined Hill and Drill Seeder, Double and Single Wheel Hoe, Cultivator and Plow. A most useful tool for all large Gardens. All particulars on application.

PLANET JR. COMBINED HILL AND DRILL SEEDER, DOUBLE AND SINGLE WHEEL HOE CULTIVATOR AND PLOUGH.

An excellent hand machine for either garden or farm. As its name indicates, it is a well designed tool, combining the functions of an efficient seeder for sowing in drills and in hills, a double wheel and a single wheel hoe, a cultivator and garden plough. It will sow almost all varieties of seeds, and this together with its many other uses makes it one of the most useful tools one can have.

Price on Rail or Steamer Sydney Weight, packed, about 60 lbs. £6 15 0



PLANET JR. HORSE HOE AND CULTIVATOR

This horse machine is a general favorite, being complete and easily operated. Believing as we do that the more thorough the cultivation, the more sure the crop, we would like to see at least one of these implements in use on every farm and large market garden. This machine is made almost entirely of steel, well braced and adaptable to any conditions. Frame of stiff steel, extra long and high, closes to 10 inches and opens to 25. Handles adjustable up, down and sidewise.

Cultivator teeth are of high carbon bevelled steel, thereby making them self-sharpening, and the point retain its shape, greatly prolonging the life of the steel. Patent hillers are reversible for hoeing or hilling. Can be run close to the plants without endangering the roots.

We would draw special attention to the depth regulator which operates with the wheel lever. It is an important particular. It controls the depth and steadies the machine, and is adjusted in an instant. The solid steel wheel, having no spokes, does not clog with sticks stones or trash.

Price on Rail or Steamer Sydney. Weight, packed, about 84 lbs. £6 7 6



PLANET JR. COMBINED DOUBLE AND SINGLE WHEEL HOE, CULTIVATOR AND PLOUGH

A double and single wheel hoe in one, with high arch, so that crops can be straddled until 20 inches high—ensuring quicker and cleaner work. It may then be used between the rows with one or two wheels. Will do almost any kind of garden work—ploughing, harrowing, hoeing, cultivating, opening furrows, covering and hilling, and useful throughout the season. Tools are of special design and specially hardened, giving great satisfaction and long service. The hoes are the most useful attachment and wonderful weed killers. All steel cultivator teeth for deep or shallow work, reversible ploughs for opening or closing furrows, and leaf lifters for late cultivation.

To work effectively the ground must be in a good loose and friable condition. In heavy and badly worked land the use of this implement is not satisfactory.

Price on Rail or Steamer Sydney. Weight, packed, about 33 lbs. £3 10 0

ARTHUR YATES & Co. Ltd.

"AUSTRALIA'S GREATEST SEED HOUSE"

184-186 SUSSEX ST. SYDNEY.